



COLLABORATIVE CONSERVATION AND ADAPTATION STRATEGY TOOLBOX

Grassland Webinar Series

“Rock and Branch Mulch for Grassland Restoration in Southeastern Arizona”

Wednesday, December 7th, 2022 – 1 PM (PST)/ 2 PM (MST)/ 4 PM (EDT)

Presenters: Dr. Elise Gornish/University of Arizona Cooperative Extension and Ariel Léger/University of Arizona

Webinar Zoom Registration: <https://arizona.zoom.us/meeting/register/tZ0vcO-hqjojGdaBAnswSUSNT5RIA6KAuRpO>

December 2022 Webinar:

Semi-arid grasslands face multiple pressures that can cause degradation of soil and loss of native plant cover. Once soil is degraded, it can be difficult for plants to reestablish. Mesquite (*Prosopis* spp.) is a woody plant whose cover has been increasing in grasslands. In a 2-year research study, Ariel found that mesquite branches can be used as mulch to improve the soil microclimate and help re-establish vegetation cover in areas of bare ground.

Elise studied the ability of low-cost rock structures called media-lunas to restore grasslands by slowing water flow, reducing erosion, and improving plant establishment. She found that within one year, there was an increase in soil moisture, litter, fungal richness, and spring seedling germination within the rock structures, despite a historic drought. These results suggest that managers should seriously consider employing these low-cost structures to increase short-term plant establishment and possibly, soil health, in grasslands.

About the Speakers:



Dr. Elise Gornish is a Cooperative Extension Specialist in Ecological Restoration at the University of Arizona. Her research and outreach program largely focuses on identifying strategies for successful restoration in arid land systems and integration of restoration approaches into weed management.

Ariel Léger is a restoration ecologist and soil scientist who studied the connection between soil health and plant health in a semi-arid rangeland at the University of Arizona. Ariel now works in the world of collaborative conservation and climate adaptation helping land managers connect to the people, knowledge, and resources they need to improve stewardship of the ecosystems and natural resources they manage.



CCAST Webinar Series:

This webinar series is one way the CCAST partnership is increasing communication to help our agencies and partners address shared conservation challenges. If you would like to learn more about CCAST or get involved, please contact Matt Grabau (matthew_grabau@fws.gov) or Genevieve Johnson (gjohnson@usbr.gov).

